Claims

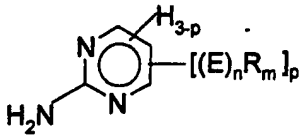
1. Process for the preparation of unsubstituted or substituted 2-amino-[1,2,4]triazolopyrimidines which comprises combining A) 2-Amino-pyrimidine or its derivatives with alkyloxycarbonyl isothiocyanate or aryloxycarbonyl isothiocyanate with B) hydroxyl ammonium salt and a base wherein the reaction is carried out in a polar aprotic organic solvent in the temperature range of from 40 to 150 °C.

2. The process according to claim 1 wherein the pH value in step B) is increased over time and finally maintained in the range of from 5.5 to 7,5.

3. The process as in claims 1 to 2, wherein the hydroxylammonium salt is hydroxyl-ammonium sulfate.

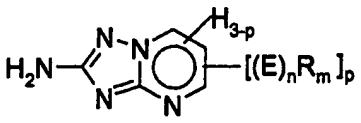
4. The process as in claims 1 to 3, wherein the polar aprotic solvent is selected from the group consiting of carboxylic acid esters.

5. The process as claimed in claims 1 to 4 wherein the 2-amino-pyrimidine or its derivatives is described by formula I



(I)

and the 2-amino-[1,2,4]triazolopyrimidine is described by formula IV



(IV)

wherein the variables have the following meaning:

E = independently the same or different are O, S, N, P;
R = independently the same or different are C_{1-10}-alkyl; C_{6-20}-aryl; C_{7-20}-arylalkyl; C_{7-20}-alkylaryl which each of those may be substituted with one or more of the following groups: F, Cl, Br, I, C_{1-20}-alkoxy, C_{6-20}-aryloxy, non substituted or preferably substituted amino; F, Cl, Br, I;

n = 0 or 1
m = 1 for E = O, S
m = 2 for E = N, P
p = 0, 1, 2 or 3.

6. Process as claimed in claims 1 to 5, wherein the process is conducted without isolation of intermediates.

7. Process for the preparation of N-([1,2,4]triazolo[1,5-a]pyrimidin-yl)aryl sulfonamides or N-([1,2,4]triazolo[1,5-a]pyrimidin-yl)heteroaryl sulfonamides which comprises preparing unsubstituted or substituted 2-amino-[1,2,4]triazolopyrimidines according to claim 1 to 6 and subsequently reacting the yielded unsubstituted or substituted 2-amino-[1,2,4]triazolopyrimidines with an arylsulfonylhalogenide Ar-SO2-Hal or an heteroarylsulfonylhalogenide Hetar-SO2-Hal.

8. Use of a process as claimed in claims 1 to 6 in the synthesis of N-([1,2,4]triazolo[1,5-a]pyrimidin-yl) structure containing agrochemicals or pharmaceuticals.